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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/852,081	05/10/2001	Alex Hornig	HORN3031/EM/6779	4745

7590 06/05/2002
Bacon & Thomas
4th Floor
625 Slaters Lane
Alexandria, VA 22314

EXAMINER

NGUYEN, TRAN N

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 06/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/852,081

Applicant(s)

HORNG ET AL.

Examiner

Tran N. Nguyen

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 1-3** are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhao et al (US 5744893) in view of Kovaleski (US 3176932), alternately in view of Vogel (US 4602751).

Zhao discloses the claimed invention (fig 2). Zhao differs from the claimed invention in one respect that is the bobbin having winding space with inner diameter is smaller than outer diameter measuring from the inner side of the bobbin's first and second disc thereof. That is the bobbin's first disc and second disc each having inclined surface such that the winding space is tapers radially inward.

Kavoleski, however, teaches a bobbins for magnetic wire having first disc and second disk (22, 24) having winding space with inner diameter is smaller than outer diameter measuring from the inner side of the bobbin's first and second disc thereof. That is the bobbin's first disc and second disc each having inclined surface such that the winding space is tapers radially inward (fig 1-2). Kavoleski teaches that the configuration of the bobbin can hold a large amount of wire. Large amount of wire would yield higher magnetic flux when it's used in a motor in operation.

Alternately, Vogel also teaches a bobbins for magnetic wire having first disc and second disk having winding space with inner diameter is smaller than outer diameter measuring from the inner side of the bobbin's first and second disc such that the winding

Art Unit: 2834

space is tapers radially inward. Vogel's bobbin can hold a large amount of wire to produce higher flux in a motor operation.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the Zhao's motor bobbin by configuring the bobbin to have winding space with inner diameter is smaller than outer diameter measuring from the inner side of the bobbin's first and second disc thereof with the bobbin's first disc and second disc each having inclined surface such that the winding space is tapers radially inward, as taught by Kavoleski or by Vogel. Doing so would increase the amount of wire to be held in the winding space of the bobbin resulting in higher magnetic flux during the motor operation.

2. **Claims 4-5** are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhao and Kovaleski or Vogel, as applied in the rejection against the base claim, and further in view of level ordinary skills in the art.

The combination of Zhao and Kovaleski or Vogel refs discloses the claimed invention, except for the added limitations of varied shapes of a convex section and the stepped section, as in the claims 4-5. The Kovaleski, also Vogel, teaches the bobbin's configuration that have winding space with inner diameter is smaller than outer diameter measuring from the inner side of the bobbin's first and second disc thereof to maximize the amount of wire to be held within the winding space of the bobbin. Therefore, it would have been obvious to an artisan to change the shape of the winding space bobbin without departing from the Kovaleski's or Vogel's teaching of the general radially inward inclined winding space. This further factually evidence by the applicant's disclosure. The specification discusses about various shapes, i.e., convex, stepped portion, without providing any further advantage of these various configurations. In fact these various configurations still serve the same purpose, as taught by Kavoleski or by Vogel, that is increasing the amount of wire wound therein so level of magnetic flux would be increase when the bobbin is incorporated as a magnetic winding structure in a motor.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the Zhao's, in view of Kovaleski's (orVogel's), bobbin with various shapes as a convex section connects with the connecting tube or the two stepped portions, as in claims 4-5.

Art Unit: 2834

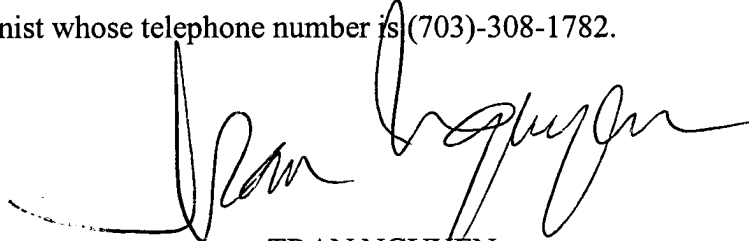
Doing so would be obvious because a change in size or shape is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955) (emphasis added).

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran N Nguyen whose telephone number is (703) 308-1639. The examiner can normally be reached on M-F 6:00AM-2:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703)-308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3431 for regular communications and (703)-395-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-1782.

A handwritten signature in black ink, appearing to read 'Tran Nguyen', is written over the printed name.

TRAN NGUYEN

PRIMARY PATENT EXAMINER

TC-2800